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NEWS 4	APR 07	STN is raising the limits on saved answers
NEWS 5	APR 24	CA/CAplus now has more comprehensive patent assignee information
NEWS 6	APR 26	USPATFULL and USPAT2 enhanced with patent assignment/reassignment information
NEWS 7	APR 28	CAS patent authority coverage expanded
NEWS 8	APR 28	ENCOMPLIT/ENCOMPLIT2 search fields enhanced
NEWS 9	APR 28	Limits doubled for structure searching in CAS REGISTRY
NEWS 10	MAY 08	STN Express, Version 8.4, now available
NEWS 11	MAY 11	STN on the Web enhanced
NEWS 12	MAY 11	BEILSTEIN substance information now available on STN Easy
NEWS 13	MAY 14	DGENE, PCTGEN and USGENE enhanced with increased limits for exact sequence match searches and introduction of free HIT display format
NEWS 14	MAY 15	INPADOCDB and INPAFAMDB enhanced with Chinese legal status data
NEWS 15	MAY 28	CAS databases on STN enhanced with NANO super role in records back to 1992
NEWS 16	JUN 01	CAS REGISTRY Source of Registration (SR) searching enhanced on STN
NEWS 17	JUN 26	NUTRACEUT and PHARMAML no longer updated
NEWS 18	JUN 29	IMSCOPROFILE now reloaded monthly
NEWS 19	JUN 29	EPFULL adds Simultaneous Left and Right Truncation (SLART) to AB, MCLM, and TI fields
NEWS 20	JUL 09	PATDPAFULL adds Simultaneous Left and Right Truncation (SLART) to AB, CLM, MCLM, and TI fields
NEWS 21	JUL 14	USGENE enhances coverage of patent sequence location (PSL) data
NEWS 22	JUL 14	CA/CAplus to be enhanced with new citing references features

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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FILE 'HOME' ENTERED AT 09:48:35 ON 15 JUL 2009

=> FILE REG

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
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FILE 'REGISTRY' ENTERED AT 09:48:50 ON 15 JUL 2009
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DICTIONARY FILE UPDATES: 13 JUL 2009 HIGHEST RN 1162342-48-4

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http://www.cas.org/support/stngen/stndoc/properties.html

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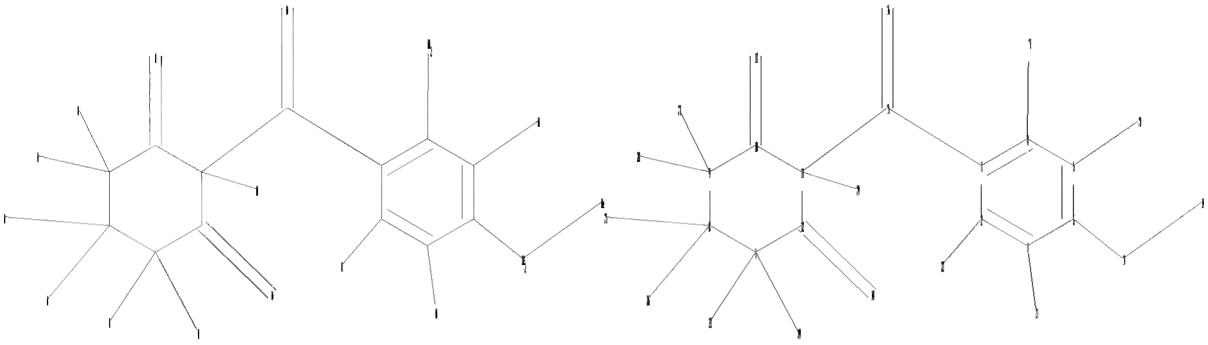
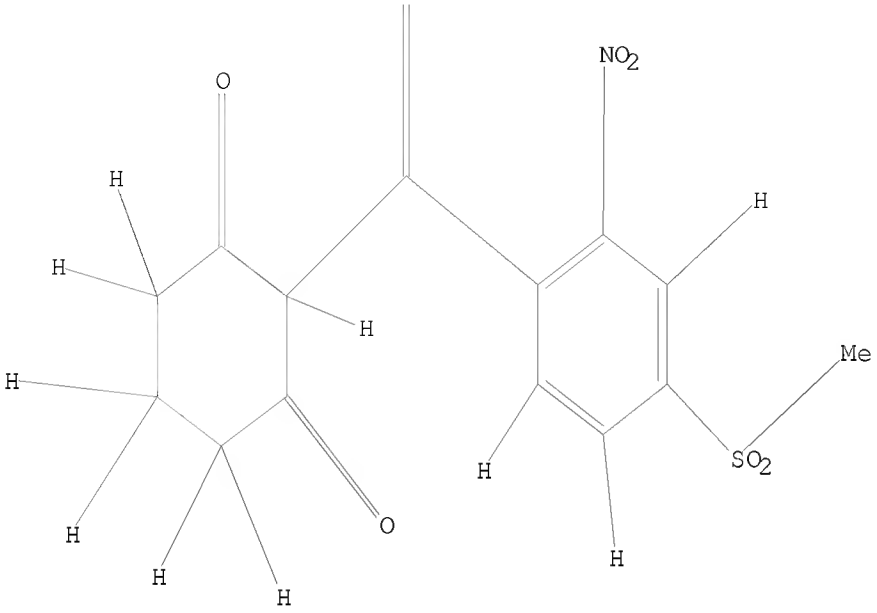


chain nodes :
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
1-21 2-22 3-15 4-17 5-20 6-18 7-23 7-24 8-25 8-26 9-27 9-28 10-13
11-15 11-29 12-14 15-16 18-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
7-8 7-12 8-9 9-10 10-11 10-13 11-12 12-14 15-16
exact bonds :
1-21 2-22 3-15 4-17 5-20 6-18 7-23 7-24 8-25 8-26 9-27 9-28 11-15
11-29 18-19
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS
19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS
27:CLASS 28:CLASS 29:CLASS

L1 STRUCTURE UPLOADED

=> D L1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1 FULL
FULL SEARCH INITIATED 09:49:20 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1282 TO ITERATE

100.0% PROCESSED 1282 ITERATIONS 293 ANSWERS
SEARCH TIME: 00.00.02

L2 293 SEA SSS FUL L1

=> S L2 AND ISOLATION
5 ISOLATION
L3 0 L2 AND ISOLATION

=> S L2 AND
MISSING TERM AFTER L2 AND
Operators must be followed by a search term, L-number, or query name.

=> FILE CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	191.71	191.93

FILE 'CAPLUS' ENTERED AT 09:50:18 ON 15 JUL 2009

FILE COVERS 1907 - 15 Jul 2009 VOL 151 ISS 3
FILE LAST UPDATED: 14 Jul 2009 (20090714/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases will soon be updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 22.

=> S L2
L4 411 L2

=> S L4 AND ISOLATION
290561 ISOLATION
L5 3 L4 AND ISOLATION

=> S L4 AND PURIFICATION
374630 PURIFICATION
L6 3 L4 AND PURIFICATION

=> S L4 AND FILTRATION
263426 FILTRATION
L7 2 L4 AND FILTRATION

=> D L5 IBIB ABS HITSTR 1-3

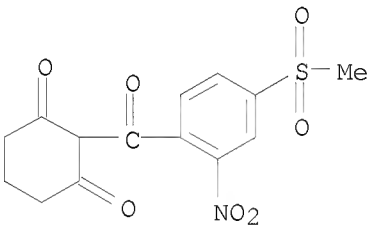
L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:263695 CAPLUS
DOCUMENT NUMBER: 150:534265
TITLE: Isolation and characterization of mesotrione-degrading Bacillus sp. from soil
AUTHOR(S): Batisson, Isabelle; Crouzet, Olivier; Besse-Hoggan, Pascale; Sancelme, Martine; Mangot, Jean-Francois; Mallet, Clarisse; Bohatier, Jacques
CORPORATE SOURCE: Laboratoire Microorganismes, Genome et Environnement, UMR 6023 CNRS, Universite Blaise-Pascal, Aubiere,

63177, Fr.
SOURCE: Environmental Pollution (Oxford, United Kingdom) (2009), 157(4), 1195-1201
CODEN: ENPOEK; ISSN: 0269-7491
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Dissipation kinetics of mesotrione, a new triketone herbicide, sprayed on soil from Limagne (Puy-de-Do.cxa.me, France) showed that the soil microflora were able to biotransform it. Bacteria from this soil were cultured in mineral salt solution supplemented with mesotrione as sole source of carbon for the isolation of mesotrione-degrading bacteria. The bacterial community structure of the enrichment cultures was analyzed by temporal temperature gradient gel electrophoresis (TTGE). The TTGE fingerprints revealed that mesotrione had an impact on bacterial community structure only at its highest concns. and showed mesotrione-sensitive and mesotrione-adapted strains. Two adapted strains, identified as Bacillus sp. and Arthrobacter sp., were isolated by colony hybridization methods. Biodegrdn. assays showed that only the Bacillus sp. strain was able to completely and rapidly biotransform mesotrione. Among several metabolites formed, 2-amino-4-methylsulfonylbenzoic acid (AMBA) accumulated in the medium. Although sulcotrione has a chemical structure closely resembling that of mesotrione, the isolates were unable to degrade it. A Bacillus sp. strain isolated from soil was able to completely and rapidly biotransform the triketone herbicide mesotrione.

IT 104206-82-8, Mesotrione
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(isolation and characterization of mesotrione-degrading Bacillus sp. from soil)

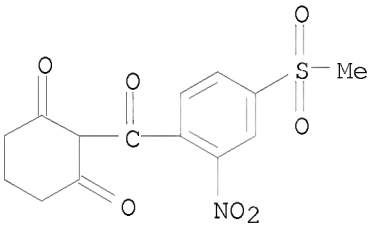
RN 104206-82-8 CAPLUS
CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:80142 CAPLUS
DOCUMENT NUMBER: 150:77303
TITLE: Synthesis of 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione (mesotrione) and determination of its activity as herbicide
AUTHOR(S): Yang, Jianbo; Pang, Huailin; Huang, Chaoqun
CORPORATE SOURCE: Hunan Research Institute of Chemical Industry, Changsha, 410007, Peop. Rep. China
SOURCE: Nongyao (2006), 45(11), 746-747, 755

CODEN: NONGFP; ISSN: 1006-0413
PUBLISHER: Nongyao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
OTHER SOURCE(S): CASREACT 150:77303
AB Mesotrione was synthesized via five-step reactions such as nitration, oxidation, acylation, condensation and rearrangement from 4-methylsulfonyl toluene used as the starting reagent. The intermediates 2-nitro-4-(methylsulfonyl)toluene and 2-nitro-4-methylsulfonylbenzoyl chloride could be used directly without isolation from the system. The total yield was 64%, with a purity more than 96%. Field expts. indicated that mesotrione at dosage of 97.5-150 g a.i./ha had effective control of dicotyledoneae (Magnoliopsida) such as Commelina communis L., Abutilon theophrasti Medicus, Polygonaceae, Acalypha australis L., Chenopodium album L., Amaranthus retroflexus L. etc., and also had some effect on monocotyledoneae (Liliopsida) such as Digitaria sanguinalis (L:) Scop., Echinochloa crus-galli (L.) Beauv. and Setaria viridis (L.) Beauv. Mesotrione was safe for corn.
IT 104206-82-8P, Mesotrione
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of mesotrione and determination of its activity as herbicide)
RN 104206-82-8 CAPLUS
CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (CA INDEX NAME)



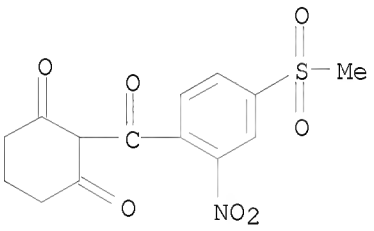
L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:983705 CAPLUS
DOCUMENT NUMBER: 146:458195
TITLE: First isolation and characterization of a bacterial strain that biotransforms the herbicide mesotrione
AUTHOR(S): Durand, S.; Amato, P.; Sancelme, M.; Delort, A.-M.; Combourieu, B.; Besse-Hoggan, P.
CORPORATE SOURCE: Laboratoire de Synthese Et Etude de Systemes a Interet Biologique, UMR 6504 CNRS-Universite Blaise Pascal, Aubiere, Fr.
SOURCE: Letters in Applied Microbiology (2006), 43(2), 222-228
CODEN: LAMIE7; ISSN: 0266-8254
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aim of this study was to find and characterize a fungal or bacterial strain capable of metabolizing mesotrione, a new selective herbicide for control of broad-leaved weeds in maize. This strain was isolated from

cloud water and showed close phylogenetic relationship with strains belonging to the Bacillus genus, based on 16S rRNA gene alignment. Kinetics of mesotrione degradation were monitored by high-performance liquid chromatog. and in situ 1H NMR spectroscopy at different concns. Mesotrione was completely biotransformed even at 5 mmol l-1 concentration 2-Amino-4-methylsulfonyl benzoic acid (AMBA) was identified as one of the metabolites, but was not the major one. This study reports the first rapid mesotrione biotransformation by a pure bacterial strain and the formation of several metabolites including AMBA. This bacterium isolated from cloud water is the first pure strain capable of rapidly degrading mesotrione.

IT 104206-82-8, Mesotrione
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(first isolation and characterization of a bacterial strain that biotransforms the herbicide mesotrione)

RN 104206-82-8 CAPLUS

CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L6 IBIB ABS HITATR 1-3
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CAN --------- List of CA abstract numbers without answer numbers
CBIB -------- AN, plus Compressed Bibliographic Data
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FBIB -------- AN, BIB, plus Patent FAM
IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers;

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             SCAN must be entered on the same line as the DISPLAY,
             e.g., D SCAN or DISPLAY SCAN)
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IABS -------- ABS, indented with text labels
IALL -------- ALL, indented with text labels
IBIB -------- BIB, indented with text labels
IMAX -------- MAX, indented with text labels
ISTD -------- STD, indented with text labels

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

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              containing hit terms
HITRN ------- HIT RN and its text modification
HITSTR ------ HIT RN, its text modification, its CA index name, and
              its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

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to view a specified Accession Number.
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=> D L6 IBIB ABS HITSTR 1-3

L6   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:        2007:338928  CAPLUS
DOCUMENT NUMBER:         147:15308
TITLE:                   Photodegradation of sulcotrione in various aquatic
                         environments and toxicity of its photoproducts for
                         some marine micro-organisms
AUTHOR(S):               Chaabane, Hanene; Vulliet, Emmanuelle; Joux, Fabien;
                         Lantoine, Francois; Conan, Pascal; Cooper,
                         Jean-Francois; Coste, Camille-Michel
CORPORATE SOURCE:        Laboratoire de Chimie des Biomolecules et de
                         l'Environnement, Centre de Phytopharmacie, Universite
                         de Perpignan, Perpignan, 66860, Fr.
```

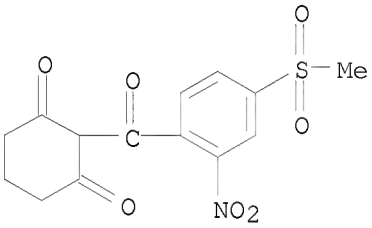
SOURCE: Water Research (2007), 41(8), 1781-1789
CODEN: WATRAG; ISSN: 0043-1354
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Photochem. behavior of sulcotrione, a triketone herbicide, was studied in a variety of aqueous solns. including natural waters (sea and river) under laboratory conditions. Photodegrdn. expts. were carried out under two irradiation systems (UV-B and simulated solar radiation) in order to evaluate kinetics of active ingredient. The degradation kinetics, more rapid under UV-B radiation than solar simulator, followed a first-order reaction (photolysis half-lives 3-50 h) and appeared strongly dependent on water origin, pH and mol. structure of the herbicide. Dissolved organic matter showed a retarding effect while low concns. of nitrates had no effect on photolysis rate. Identification of photoproducts indicated that hydrolysis, a pH-dependent process (no degradation at pH >6 but at pH =3, k =0.0344/h), could be photoassisted. These results were compared to those of mesotrione, another triketone herbicide, which appeared more stable under UV-B irradiation Toxicol. studies on 2 marine heterotrophic bacteria and one cyanobacterium showed absence of effects ≤100 μg/L for both sulcotrione and its photoproducts.

IT 104206-82-8, Mesotrione
RL: POL (Pollutant); OCCU (Occurrence)
(photodegrdn. of sulcotrione in various aquatic environments and toxicity of its photoproducts to marine microorganisms)

RN 104206-82-8 CAPLUS

CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:346978 CAPLUS
DOCUMENT NUMBER: 142:392176
TITLE: Process for the preparation and purification of mesotrione using mesotrione enolate formation
INVENTOR(S): Wichert, Julie Marie; Benke, Alan Henry; Guidetti-Grept, Regine Laure
PATENT ASSIGNEE(S): Syngenta Participations A.-G., Switz.
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005035487	A1	20050421	WO 2004-EP10960	20041001
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004279545	A1	20050421	AU 2004-279545	20041001
CA 2537986	A1	20050421	CA 2004-2537986	20041001
EP 1682497	A1	20060726	EP 2004-765733	20041001
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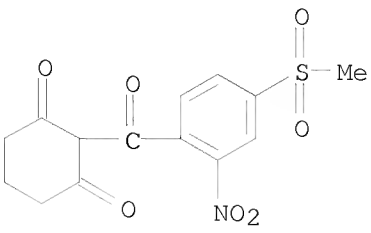
CN 1860102	A	20061108	CN 2004-80028185	20041001
CN 100378071	C	20080402		
BR 2004015019	A	20061128	BR 2004-15019	20041001
JP 2007507457	T	20070329	JP 2006-530065	20041001
ZA 2006001864	A	20070725	ZA 2006-1864	20060303
MX 2006002938	A	20060531	MX 2006-2938	20060315
KR 2006091312	A	20060818	KR 2006-706394	20060331
IN 2006CN01113	A	20070817	IN 2006-CN1113	20060331
US 20080045751	A1	20080221	US 2007-573723	20070221
PRIORITY APPLN. INFO.:			GB 2003-23090 A	20031002
			GB 2004-14816 A	20040701
			WO 2004-EP10960 W	20041001

AB A process for reducing the levels of impurities in mesotrione is described comprising: (i) forming a mesotrione enolate (e.g., the potassium enolate) in an aqueous solvent; (ii) carrying out one or more purification processes (e.g., adsorption, distillation, etc.); and (iii) crystallizing the purified mesotrione out of solution

IT 104206-82-8P, Mesotrione
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(process for the preparation and purification of mesotrione using mesotrione enolate formation)

RN 104206-82-8 CAPLUS

CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:754346 CAPLUS
DOCUMENT NUMBER: 137:262844
TITLE: Purification of 2-nitro-4-methylsulfonylbenzoic acid
INVENTOR(S): Javdani, Kambiz; Rodriguez, Gilbert; Muxworthy, James Peter
PATENT ASSIGNEE(S): Syngenta Limited, UK
SOURCE: PCT Int. Appl., 12 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002076934	A2	20021003	WO 2002-GB1433	20020325
WO 2002076934	A3	20030220		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2434980	A1	20021003	CA 2002-2434980	20020325
AU 2002249384	A1	20021008	AU 2002-249384	20020325
AU 2002249384	B2	20070607		
HU 2003002530	A2	20031128	HU 2003-2530	20020325
HU 2003002530	A3	20051128		
EP 1377544	A2	20040107	EP 2002-718314	20020325
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1500077	A	20040526	CN 2002-807203	20020325
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US 20040171872	A1	20040902	US 2004-472962	20040409
US 7285678	B2	20071023		

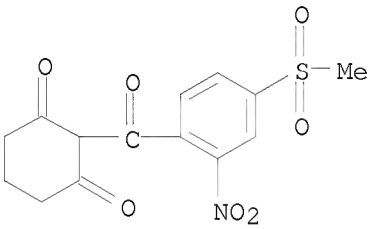
PRIORITY APPLN. INFO.: US 2001-275061P P 20010326
WO 2002-GB1433 W 20020325

AB A method for removing impurities from 2-nitro-4-methylsulfonylbenzoic acid comprises at least two of the following steps, in any order: (a) dissolving 2-nitro-4-methylsulfonylbenzoic acid in water at a pH of 2-10, followed by filtration; (b) contacting an aqueous solution of 2-nitro-4-methylsulfonylbenzoic acid with activated carbon at a pH of 2-10; (c) treating an aqueous solution of 2-nitro-4-methylsulfonylbenzoic acid with sufficient base to hydrolyze undesired nitro and dinitro substituted impurities; followed by maintaining the resulting aqueous solution comprising 2-nitro-4-methylsulfonylbenzoic acid at a temperature of up to about 95°C, and adjusting the pH of the solution to about a pH which is sufficient to effect crystallization of 2-nitro-4-methylsulfonylbenzoic acid upon cooling.

IT 104206-82-8P, Mesotrione
RL: IMF (Industrial manufacture); PREP (Preparation)
(purification of 2-nitro-4-methylsulfonylbenzoic acid for preparation of)

RN 104206-82-8 CAPLUS

CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:346978 CAPLUS
DOCUMENT NUMBER: 142:392176
TITLE: Process for the preparation and purification of mesotrione using mesotrione enolate formation
INVENTOR(S): Wichert, Julie Marie; Benke, Alan Henry; Guidetti-Grept, Regine Laure
PATENT ASSIGNEE(S): Syngenta Participations A.-G., Switz.
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005035487	A1	20050421	WO 2004-EP10960	20041001
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004279545	A1	20050421	AU 2004-279545	20041001
CA 2537986	A1	20050421	CA 2004-2537986	20041001
EP 1682497	A1	20060726	EP 2004-765733	20041001
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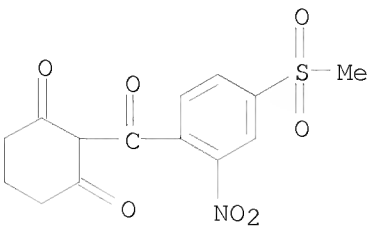
CN 1860102	A	20061108	CN 2004-80028185	20041001
CN 100378071	C	20080402		
BR 2004015019	A	20061128	BR 2004-15019	20041001
JP 2007507457	T	20070329	JP 2006-530065	20041001
ZA 2006001864	A	20070725	ZA 2006-1864	20060303
MX 2006002938	A	20060531	MX 2006-2938	20060315
KR 2006091312	A	20060818	KR 2006-706394	20060331
IN 2006CN01113	A	20070817	IN 2006-CN1113	20060331
US 20080045751	A1	20080221	US 2007-573723	20070221
PRIORITY APPLN. INFO.:			GB 2003-23090 A	20031002
			GB 2004-14816 A	20040701
			WO 2004-EP10960 W	20041001

AB A process for reducing the levels of impurities in mesotrione is described comprising: (i) forming a mesotrione enolate (e.g., the potassium enolate) in an aqueous solvent; (ii) carrying out one or more purification processes (e.g., adsorption, distillation, etc.); and (iii) crystallizing the purified mesotrione out of solution

IT 104206-82-8P, Mesotrione
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(process for the preparation and purification of mesotrione using mesotrione enolate formation)

RN 104206-82-8 CAPLUS

CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:754346 CAPLUS
DOCUMENT NUMBER: 137:262844
TITLE: Purification of 2-nitro-4-methylsulfonylbenzoic acid
INVENTOR(S): Javdani, Kambiz; Rodriguez, Gilbert; Muxworthy, James Peter
PATENT ASSIGNEE(S): Syngenta Limited, UK
SOURCE: PCT Int. Appl., 12 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002076934	A2	20021003	WO 2002-GB1433	20020325
WO 2002076934	A3	20030220		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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AU 2002249384	B2	20070607		
HU 2003002530	A2	20031128	HU 2003-2530	20020325
HU 2003002530	A3	20051128		
EP 1377544	A2	20040107	EP 2002-718314	20020325
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1500077	A	20040526	CN 2002-807203	20020325
CN 1250525	C	20060412		
BR 2002007414	A	20040810	BR 2002-7414	20020325
JP 2004525145	T	20040819	JP 2002-576196	20020325
JP 3911237	B2	20070509		
RU 2287521	C2	20061120	RU 2003-131328	20020325
TW 224091	B	20041121	TW 2002-91114621	20020702

IN 2003MN00707	A	20050624	IN 2003-MN707	20030717
ZA 2003006327	A	20040903	ZA 2003-6327	20030814
KR 858546	B1	20080912	KR 2003-711328	20030828
MX 2003008279	A	20031212	MX 2003-8279	20030912
US 20040171872	A1	20040902	US 2004-472962	20040409
US 7285678	B2	20071023		

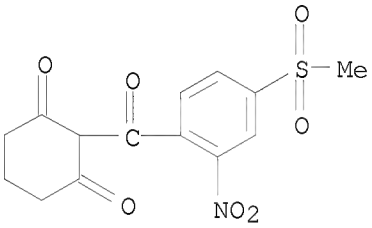
PRIORITY APPLN. INFO.: US 2001-275061P P 20010326
WO 2002-GB1433 W 20020325

AB A method for removing impurities from 2-nitro-4-methylsulfonylbenzoic acid comprises at least two of the following steps, in any order: (a) dissolving 2-nitro-4-methylsulfonylbenzoic acid in water at a pH of 2-10, followed by filtration; (b) contacting an aqueous solution of 2-nitro-4-methylsulfonylbenzoic acid with activated carbon at a pH of 2-10; (c) treating an aqueous solution of 2-nitro-4-methylsulfonylbenzoic acid with sufficient base to hydrolyze undesired nitro and dinitro substituted impurities; followed by maintaining the resulting aqueous solution comprising 2-nitro-4-methylsulfonylbenzoic acid at a temperature of up to about 95°C, and adjusting the pH of the solution to about a pH which is sufficient to effect crystallization of 2-nitro-4-methylsulfonylbenzoic acid upon cooling.

IT 104206-82-8P, Mesotrione
RL: IMF (Industrial manufacture); PREP (Preparation)
(purification of 2-nitro-4-methylsulfonylbenzoic acid for preparation of)

RN 104206-82-8 CAPLUS

CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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NEWS 4	APR 07	STN is raising the limits on saved answers
NEWS 5	APR 24	CA/CAplus now has more comprehensive patent assignee information
NEWS 6	APR 26	USPATFULL and USPAT2 enhanced with patent assignment/reassignment information
NEWS 7	APR 28	CAS patent authority coverage expanded
NEWS 8	APR 28	ENCOMPLIT/ENCOMPLIT2 search fields enhanced
NEWS 9	APR 28	Limits doubled for structure searching in CAS REGISTRY
NEWS 10	MAY 08	STN Express, Version 8.4, now available
NEWS 11	MAY 11	STN on the Web enhanced
NEWS 12	MAY 11	BEILSTEIN substance information now available on STN Easy
NEWS 13	MAY 14	DGENE, PCTGEN and USGENE enhanced with increased limits for exact sequence match searches and introduction of free HIT display format
NEWS 14	MAY 15	INPADOCDB and INPAFAMDB enhanced with Chinese legal status data
NEWS 15	MAY 28	CAS databases on STN enhanced with NANO super role in records back to 1992
NEWS 16	JUN 01	CAS REGISTRY Source of Registration (SR) searching enhanced on STN
NEWS 17	JUN 26	NUTRACEUT and PHARMAML no longer updated
NEWS 18	JUN 29	IMSCOPROFILE now reloaded monthly
NEWS 19	JUN 29	EPFULL adds Simultaneous Left and Right Truncation (SLART) to AB, MCLM, and TI fields
NEWS 20	JUL 09	PATDPAFULL adds Simultaneous Left and Right Truncation (SLART) to AB, CLM, MCLM, and TI fields

NEWS 21 JUL 14 USGENE enhances coverage of patent sequence location (PSL) data
NEWS 22 JUL 14 CA/CAplus to be enhanced with new citing references features

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AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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